

Claims

1. An isolated nucleotide sequence comprising 5'-NGGAGANNTG-3' (SEQ ID NO:57); wherein N at position 1 is chosen from G and A, N at position 7 is chosen from T and C, and N at position 8 is chosen from T and C, and wherein said isolated sequence specifically binds with a polypeptide sequence comprising RelB Rel homology domain (RHD) listed as SEQ ID NO:62.

5 2. The nucleotide sequence of Claim 1, wherein the specific binding increases transcription of a nucleic acid sequence of interest that is operably linked to said nucleotide sequence.

10 3. The isolated nucleotide sequence of Claim 1, wherein said nucleotide sequence does not bind to a protein chosen from one or more of RelB, RelA, p50, RelB:p50, RelA:p50, and RelA:p52.

15 4. The isolated nucleotide sequence of Claim 1, wherein said nucleotide sequence comprises 5'-GGGAGATTG-3' (SEQ ID NO:59).

20 5. The isolated nucleotide sequence of Claim 1, wherein said nucleotide sequence comprises 5'-GGGAGACCTG-3' (SEQ ID NO:2).

25 6. The isolated nucleotide sequence of Claim 1, wherein said nucleotide sequence comprises 5'-AGGAGATTG-3' (SEQ ID NO:60).

7. A method for identifying one or more test compounds that alters binding of RelB Rel homology domain (RelB RHD) with RelB \hat{B} sequence, comprising:

30 a) contacting i) the isolated nucleotide sequence of Claim 1 with ii) a polypeptide comprising RelB RHD listed as SEQ ID NO:62 in the presence and absence of said one or more test compounds; and

b) detecting altered specific binding of said nucleotide sequence with SEQ ID NO:62 in the presence of said one or more test compounds compared to in the absence of said one or more test compounds, thereby identifying said one or more test compounds as altering binding of RelB RHD with RelB \hat{B} sequence.

8. The method Claim 7, wherein said polypeptide is recombinant.
9. The method of Claim 8, wherein said polypeptide comprises RelB:p52.
- 5 10. The method of Claim 8, wherein said polypeptide comprises RelB.
11. The method of Claim 8, wherein said contacting is *in vivo*.
- 10 12. The method of Claim 8, wherein said contacting is *in vitro*.
13. The method of Claim 7, further comprising detecting unaltered binding of said nucleotide sequence to a protein comprising one or more of RelA Rel homology domain (RelA RHD) listed as SEQ ID NO:65, RelA, p50, RelA:p50, p52, RelA:p52, RelB RHD, 15 RelB, and RelB:p50 in the presence and absence of said one or more test compounds.
14. The method of Claim 7, further comprising detecting unaltered binding of an isolated nucleotide sequence comprising the consensus- \hat{e} B sequence 5'-GGGACTTCC-3' (SEQ ID NO:58) to a polypeptide comprising one or more of RelB RHD listed as SEQ ID 20 NO:62, and RelB in the presence of said one or more test compounds.
15. A method for expression of a nucleic acid sequence of interest, comprising:
 - a) providing:
 - i) a cell comprising the isolated nucleotide sequence of Claim 1, wherein said SEQ ID NO:57 is operably linked to said nucleic acid sequence of interest; and
 - ii) a polypeptide comprising RelB Rel homology domain (RelB RHD) listed as SEQ ID NO:62;
 - b) contacting said cell with said polypeptide such that said SEQ ID NO:62 specifically binds with said SEQ ID NO:57, and said nucleic acid sequence of interest is expressed.
- 30 16. The method of Claim 15, wherein said polypeptide is recombinant.

17. The method of Claim 16, wherein said polypeptide comprises RelB:p52.

18. The method of Claim 16, wherein said polypeptide comprises RelB.

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19. A kit comprising the isolated nucleotide sequence of Claim 1.